

REMARKS

The present Amendment cancels claims 1-15 and adds new claims 16-27. Therefore, the present application has pending claims 16-27.

Claims 5-7, 10 and 14 stand objected to due to various informalities noted by the Examiner in paragraphs 8 and 9 of the Office Action. As indicated above, claims 5-7, 10 and 14 were canceled. Therefore, this objection is rendered moot. Accordingly, reconsideration and withdrawal of this objection is respectfully requested.

Claims 4, 5, 7-9, 11-13 and 15 stand rejected under 35 USC §103(a) as being unpatentable over Murray (article entitled "Windows NT SNMP") in view of Singh (U.S. Patent No. 5,758,083); and claims 6, 10 and 14 stand rejected under 35 USC §103(a) as being unpatentable over Murray, in view of Singh and further in view of Karau (U.S. Patent No. 6,473,502). As indicated above, claims 4-15 were canceled. Therefore, these rejections are rendered moot. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

It should be noted that the cancellation of claims 1-15 was not intended nor should it be considered as an agreement on Applicants part that the features recited in claims 1-15 are taught or suggested by any of the references of record particularly Murray, Singh and Karau whether taken individually or in combination with each other as suggested by the Examiner. The cancellation of claims 1-15 was simply intended to expedite prosecution of the present application.

As indicated above, new claims 16-27 were added. New claims 16-27 are directed to a method of managing a network system and the network system itself. According to the present invention the network system includes, for example, as illustrated in Fig. 1 a plurality of network elements are connected to each other, wherein a first network element is connected to a graphical local craft terminal for maintaining the network system and a plurality of network elements are targets of maintenance. Further, according to the present invention when a second network element is added to the network system or settings of the second network element are changed, the method is enabled to register addresses and change addresses automatically by sending or receiving the addresses between the first network element and the second network element.

As shown in Fig. 2 of the present application, the present invention aims to provide a system for managing a network system and a method for managing a network system, which automatically enables to connect a network element (A10) connected to a graphical local craft terminal, to a network element (D40) added or changed, only by inputting by an administrator, a system ID or an address of the network element D40 when the network element D40 is newly connected to the network or the settings of the network element are changed.

In order to achieve the above, the network elements of the present invention are provided with system ID address change means that enable a network element to be in an accessible state by handling an address as per the following:

(1) First, an administrator inputs a system ID (or an address) of network element added or changed, to a graphical local craft terminal of the network element

A10 connected to the graphical local craft terminal, and the network element A10 accepts the input system ID (or address).

(2) The network element 140 assembles a Protocol Data Unit (PDU) inquiring a system ID (or an address corresponding to the input system ID) when input data is system ID corresponding to the input address by system ID address change means, and sends the PDU along the network.

(3) The plurality of network elements on the network compare the address (or system ID) included in received first PDU with an address (or system ID) of its own when receiving the first PDU.

(4) Then, the plurality of network elements sends back a PDU including the address (or system ID) when the address (or system ID) included in received first PDU matches the address (or system ID) of its own.

(5) The network element A10 can get the address (or system ID) of the network element added or changed by receiving the PDU.

(6) The network element P.10 generates an address management Managed Object (MO) for the network element added or changed based on the system ID and the address of the network element added or changed.

(7) Next, the network element A10 send a PDU including the system ID and address of the network element 140 to a network element D40.

(8) The network element D40 receiving the PDU generates an address management MO based on the network element A10 the system ID and the address in the received PDU.

(9) As stated above, both the network element P. 10 connected to 10 the graphical local terminal and the network element D40 added or changed generate the address managed MO based on the gotten system ID and address and the network element D40 added or changed is able to be an accessible state from the graphical local craft terminal.

Thus, the features of the present invention as described above are not taught or suggested by any of the references of record whether taken individually or in combination with each other. Particularly, the above described features of the present invention now more clearly recited in the claims are not taught or suggested by Murray, Singh or Karau whether taken individually or in combination with each other as suggested by the Examiner.

The network system of the present invention is managed on the premise that the protocol and interface between network elements use the OSI reference model. Murray discloses a typical network management method in a TCP/IP network environment using Simple Network Management Protocol (SNMP). Singh discloses a technique for managing by sharing information between distributed network managers, wherein the technique can manage not only local network conditions but also network conditions on other remote networks. Karau discloses examples of graphical user interfaces for maintaining a network system, wherein one of examples of information displayed in a screen includes Service Access Points (SAP) of OSI, i.e. TSAP, SSAP, PSAP, and NSAP.

Thus, the features of the present invention as now more clearly recited in the claims are directed to providing new functionalities in an OSI reference model

environment entirely different from that taught by any of the references of record, particularly Murray, Singh and Karau. Thus, Murray, Singh or Karau whether taken individually or in combination with each other are not directed to providing functionalities in an OSI reference model environment as in the present invention.

To further explain these differences between the features of the present invention as recited in the claims and each of Murray, Singh and Karau the following is provided.

Murray merely describes a method for managing a network system based on using a typical SNMP technique and a typical OSI reference model. However, Murray does teach or suggest a method for managing network elements on a network system such as in the present invention. The system of the present invention has system ID address change means which allows for an address to be obtained automatically only by inputting a system ID of the target for managing network elements, and enables a network element to be in an accessible state by generating an address management MO for managing the network element based on the obtained address. Such features are clearly not taught or suggested by Murray.

Singh discloses sending and receiving network management information between network managers. However, the network management information as taught by Singh is information indicating problems with devices on the network or information as to the topology of the network. Therefore, Singh does not teach or suggest the address management method as in the present invention as recited in the claims.

Karau discloses that Service Access Points of each layer of the OSI reference model, namely TSAP, SSAP, PSAP, and NSPA, are used for maintaining a network system. The Examiner refers to col. 27, lines 35-41 of Karau. However, Karau does not teach or suggest the system ID address change means which obtains an address and enables the network element to be in an accessible state automatically as in the present invention as recited in the claims.

Thus, Murray, Singh and Karau whether taken individually or in combination with each other fail to teach or suggest accepting, by the first network element, input of a system ID of the second network element, assembling, by the first network element, a first PDU inquiring at an address corresponding to the input system ID, sending, by the first network element, the first PDU along the network system, comparing, by each network element, the system ID included in the first PDU with a system ID of the network element when receiving the first PDU and sending back, by the network element, a second PDU including an address of the network element when the system ID included in the first PDU matches the system ID of the network element as recited in the claims.

Further, Murray, Singh and Karau whether taken individually or in combination with each other fail to teach or suggest getting, by the first network element, the address of the second network element by receiving the second PDU sent back, sending, by the first network element, a third PDU including a system ID and address of the first network element to the second network element and generating, by the second network element, an address MO for the network element based on

information of the first network element included in the received third PDU as recited in the claims.

Still further, Murray, Singh and Karau whether taken individually or in combination with each other fail to teach or suggest sending, by the second network element, a fourth PDU including a system ID and an address of the second network element to the first network element, generating, by the first network element, an address management MO for a network element added or changed based on information of the second network element included in the received fourth PDU and enabling the first network element to be in an accessible state to the second network element as recited in the claims.

Therefore, based on the above, it is quite clear that the features of the present invention as now more clearly recited in the claims are not anticipated nor rendered obvious by Murray, Singh and Karau whether taken individually or in combination with each other as suggested by the Examiner.

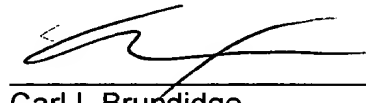
The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 1-15.

In view of the foregoing amendments and remarks, applicants submit that claims 16-27 are in condition for allowance. Accordingly, early allowance of claims 16-27 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (520.40415X00).

Respectfully submitted,

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